

R E P O R T R E S U M E S

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EXPERIMENTAL PROGRAMS FOR INTENSIVE CYCLE SCHEDULING OF
SPEECH AND HEARING THERAPY CLASSES.

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*SPEECH HANDICAPS, *PROGRAM DEVELOPMENT, SPEECH IMPROVEMENT,
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SURVEYS OF PROFESSIONAL LITERATURE INDICATED THAT
INTENSIVE CYCLE SCHEDULING FOR SPEECH AND HEARING THERAPY
MIGHT YIELD BETTER RESULTS THAN MORE TRADITIONAL METHODS.
EXPERIMENTAL PROGRAMS USING THIS NEW METHOD WERE ESTABLISHED
IN FIVE SCHOOL SYSTEMS AS A FIELD TEST OF EFFICIENCY. THE 4
YEARS OF RESEARCH IN INTENSIVE CYCLE SCHEDULING IN THESE FIVE
SYSTEMS RESULTED IN SEVERAL REVISIONS IN PROGRAM STANDARDS
PRESENTED TO THE STATE BOARD OF EDUCATION. EACH OF THE FIVE
STUDIES IS REPORTED BRIEFLY WITH THE ADVANTAGES SUMMARIZED
AND SUGGESTIONS MADE ABOUT THE LENGTH AND NATURE OF THE
INTENSIVE CYCLE SCHEDULING OF SPEECH AND HEARING THERAPY.
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Issued by

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Superintendent of Public Instruction
Ohio Department of Education
Columbus, Ohio 43215

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OHIO DEPARTMENT OF EDUCATION
Columbus, Ohio, 43215

1966

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F O R E W O R D

Ohio State Board of Education Program Standards adopted in July, 1962, make provision for the approval of special education units or fractional units for experimental programs designed to provide a "new or a different approach to the techniques and/or methodology related to speech and hearing therapy." This provision provides an opportunity for the Division of Special Education, in cooperation with local school districts, to explore methods to make more effective use of speech therapy services.

An area of concern to professional speech and hearing therapists has been the efficiency of various methods of scheduling therapy services. Present practice in Ohio requires twice-weekly therapy sessions until students are dismissed as corrected or having obtained maximum improvement. Since research over the past twenty years in Ohio confirms findings in other states that between thirty and forty percent of the students are so dismissed, it was felt that perhaps a different method of scheduling would yield a higher percentage of correction. Surveys of professional literature indicated that intensive cycle scheduling might yield better results if applied in Ohio.

Since 1962, the Division of Special Education has approved the establishment of experimental programs in intensive cycle scheduling in five different school systems so that the new method of scheduling might be field tested. Under intensive cycle scheduling, students are seen daily over a period of several weeks, so that therapy is given in a highly concentrated manner. The therapist then schedules alternate blocks with other children prior to returning to the original group.

The school systems which developed experimental programs in intensive cycle scheduling included Brecksville, Cleveland, Dayton, and East Cleveland City Schools and the Crawford County Schools. Results from a variety of school systems were thus studied.

The research in intensive cycle scheduling completed during the past four years is the basis for revisions in program standards suggested to the Ohio State Board of Education. An expression of sincere appreciation should go to the speech and hearing therapists, administrators, teachers, and children who participated in these projects, and to Mr. F. P. Gross, Educational Administrator, Pupil Services and Miss Elizabeth C. MacLearie, Educational Consultant, Speech and Hearing Therapy, for the preparation of this report.

S. J. Bonham, Jr., Director
Division of Special Education

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BRECKSVILLE STUDY

- I. Project Title: "Intensive Cycle Scheduling of Speech Therapy"
- II. Location: Brecksville City Schools
- III. Date: 1962-1964
- IV. Project Participants:
 - A. Project Coordinator:

Mr. William Weidner
Assistant Professor of Speech Pathology
and Audiology
Kent State University
 - B. Therapist for Experimental Group:

Mrs. Jean Schuler
 - C. Therapists for the Control Group:

Mrs. Donna Cifanti (1962-63)
Mrs. Nancy Saigel (1963-64)
 - D. Statistical Consultant

Mr. Richard Moore (1963-64)
- V. Objectives:
 - A. To ascertain whether children make more improvement under the intensive cycle method or traditional method of scheduling.
 - B. To determine whether the number of children on the waiting list for services could be reduced by including more children in the annual program of services.
- VI. Definition of Terms:
 - A. Traditional Method: Each pupil received individual or group therapy for two one-half hour periods per week throughout the school year until dismissed as corrected or as having obtained optimum improvement.

- B. Intensive Cycle Plan: Each pupil received therapy four times per week for six consecutive weeks in two separate six weeks cycles during the school year.

VII. Procedures:

Thirty-five children were scheduled in each of two elementary schools during a six weeks period. In the following two six weeks periods, two different groups of thirty-five children were seen.

In the fourth six weeks period, those pupils who needed therapy from the original group were rescheduled. Students on the waiting list completed the case load when the original students were dismissed as having reached maximum improvement.

The Templin-Darley Screening Diagnostic Test was administered to the experimental and control groups at the beginning and end of the project by qualified speech therapists from Kent State University.

Fifty-five children in the experimental group were matched as closely as possible with fifty-five children in the control group according to grade, age, sex, type of defect and severity of articulatory problem.

The control group of fifty-five students was selected from the two neighboring communities of Cuyahoga Heights and Independence which were of comparable size and economic background to the Brecksville City Schools. The traditional plan of scheduling was used in the control group.

Table I below indicates gains made by both the experimental and control groups:

TABLE I
Improvement in Experimental
and Control Groups

Area	1962-63		1963-64	
	Experimental	Control	Experimental	Control
Number of Subjects	53	53	48	48
Mean Pre-Test Score	122.64	137.03	132.12	142.43
Standard Deviation	26.50	13.67	19.77	25.98
Mean Post-Test Score	163.66	162.20	163.04	159.81
Standard Deviation	15.13	13.19	11.68	21.02
Mean Improvement Score	41.02	25.17	not reported	not reported
Maximum Score of 176	17	8	not reported	not reported

Both experimental and control groups improved significantly (.001 level of confidence) as a result of therapy.

According to the Templin-Darley Screening Diagnostic Test, the experimental group was more effective than the control group by a difference of 13.83. This difference was not statistically significant.

VIII. Evaluation:

A. Objective Evaluation:

1. Number of students served: In grades two through six all pupils needing therapy received it. This number was 168 as compared to ninety-six served by the experimenter for the 1961-62 school year, indicating a considerable gain in number of students served and significantly reduced the waiting list for speech and hearing therapy services.

2. Improvement: Under the traditional program conducted by the experimenter in the year preceding the experimental program, ninety-six pupils were enrolled in speech therapy. Of this number, forty-six or forty-eight percent were corrected and dismissed at the end of the school year.

Under the intensive plan (1962-63), 185 pupils received therapy. Of this number, ninety-eight or fifty-three percent attained maximum improvement. These differences cannot be considered to be significant in terms of percent corrected or dismissed, although twice as many students were served under the intensive cycle method.

3. Carry-over: In September, following the 1962-63 program, all children enrolled in both groups were checked. The experimental mean carry-over score of 6.18 was .63 higher than the control group score of 5.55. No tests of significance were applied, although it would appear that the experimental (intensive cycle) group did slightly better in carrying over their gains in speech.

B. Subjective Evaluation:

- A. Teacher Reaction: A questionnaire was given each classroom teacher. Of the thirty-five teachers responding, thirty felt that the intensive cycle method of scheduling fitted better with other aspects of their daily program. Two stated they had no opinion, and three preferred the traditional method.

In response to the question, "Do you think the experimental type of program was better for the student than the traditional plan?", twenty-seven teachers said yes; one, about the same; seven reserved opinion until results of the evaluation were determined.

No negative comments were made by the teachers. Several thought that the frequent therapy sessions seemed to help the pupil in using his corrected speech in reading and oral communication in the class. No such questionnaire responses were recorded for the control group.

CLEVELAND STUDY

- I. Project Title: "The Effectiveness of Intensive Speech Therapy vs. Traditional Therapy"
- II. Location: Cleveland City Schools
- III. Date: First semester, 1964-65
- IV. Project Participants:
 - A. Project Coordinator:

Mrs. Dorothy Norris
Supervisor, Speech Therapy Program
Cleveland Board of Education
 - B. Therapist for Experimental Program:

Mrs. Carole Erdman
 - C. Test Team (Cleveland Therapists)

Mrs. Susan Braun
Mr. Christy Kolas
Mr. Howard Mims
- V. Objective of the Study:
 - A. To determine whether the traditional or intensive scheduling of children with functional articulatory problems produces more rapid improvement.
- VI. Definition of Terms:
 - A. Intensive Therapy: The subjects received daily thirty minute therapy sessions for two weeks.
 - B. Traditional Therapy: The subjects were seen for thirty minute therapy sessions twice weekly for five weeks.

VII. Procedures:

- A. Program Organization: Seventy children with articulatory problems were randomly selected from four schools. They were grouped in classes of three to four each. Groups were matched as closely as possible on the basis of age and severity of problems.

Program A was organized to administer Intensive therapy, followed by Traditional therapy (Schools one and two)

In Program B, Traditional scheduling preceded Intensive scheduling (Schools three and four)

To minimize variations in individual teaching techniques, one therapist instructed all seventy children. Care was taken to follow the same format, regardless of sound, for every lesson given to each child. Activities and games were deleted from therapy. Lessons were placed in spiral notebooks. In the traditional scheduling, notebook lessons were to be taken home and reviewed every night by child and parent, while the notebooks were kept in school for groups involved in intensive cycle scheduling.

B. Tests Administered:

1. The Templin-Darley Test of Articulation and a Rating Scale devised by the Cleveland Speech Therapy Department were administered by three experienced speech therapists. Pre-tests, intermediate tests and post-tests were administered to each child by the same therapist.
2. Rating Scale: Items were rated by therapists on a seven point rating scale covering the following areas:
 - a. Discrimination
 - b. Producing Sound in Isolation after Stimulation by Tester
 - c. Initial Sound
 - d. Final Sound
 - e. Medial Sound
 - f. Producing Sound in Words in a Sentence
 - g. Conversational Speech

VIII. Evaluation:

A. Objective Evaluation:

A comparison of average scores made on the Templin-Darley Test of Articulation by 70 subjects was made and is reported in Table I below:

TABLE I

Articulation Gains

AREA	Traditional	Intensive	Difference
Total Gain	508	621	+113
Average Gain	7.26	8.87	+1.61
Standard Deviation	8.31	11.14	+2.83

The difference in average gain of 1.61, while favoring the Intensive Method, was not statistically significant.

Table II below shows gains in number of items correctly answered on the Templin-Darley Test.

TABLE II

Gains in Items Correctly Answered

AREA	Traditional	Intensive
Gains in Items Correct	18	19.4
Standard Deviation	7.85	4.88

The gain for those pupils who received traditional therapy was significant at .01 level of confidence.

The gain for those pupils who received intensive therapy was significant at the .001 level of confidence. No significant differences between the experimental and control groups were found.

B. Subjective Evaluation:

1. All groups made greatest gains as measured by the Rating Scale in their first therapy program regardless of scheduling method used. Although the results were not statistically significant, the group receiving the Intensive program first had a greater average gain than the group using the Traditional method first.

The traditional therapy given second had a better average gain than the intensive therapy given second. This would imply that optimum program may be "Intensive first" and "Traditional second".

2. Although not statistically significant, the Templin-Darley Test showed a larger average gain was made with the Intensive method than with the Traditional.
3. The Templin-Darley Test, when used alone, may not measure adequately the improvement in articulation in short term therapy.
4. For the purpose of this study, the "Rating Scale" seemed to be a more satisfactory measure because it dealt with the specific sound worked on, rather than a gross evaluation of the child's total speech.
5. With the Rating Scale, greater improvement was made in Intensive therapy in the following areas:
 - a. Discrimination
 - b. Producing Sound in Isolation after Stimulation by Tester
 - c. Initial Sound
 - d. Medial Sound
6. With the Rating Scale, greater improvement was made in Traditional therapy in:
 - a. Final Sound
 - b. Producing Sound in Words in a Sentence
 - c. Conversational Speech
7. The children who had the Intensive program first seemed to progress more rapidly than those who started with Traditional Therapy.

CRAWFORD COUNTY STUDY

- I. Project Title: "The Effects of Frequency of Therapy Sessions on the Correction of Misarticulatory Errors"
- II. Location: Crawford County Local Schools
- III. Date: 1964-65 School year
- IV. Project Participants:
 - A. Project Coordinator:
Dr. Ruth Irwin
Associate Professor
Ohio State University
 - B. Therapist:
Mrs. Betty Ausenheimer
- V. Objectives of the Study:
 - A. To determine the optimum frequency of scheduling children with functional articulatory errors.
 - B. To determine whether a significant difference in the rate or degree of change would result after eight weeks, sixteen weeks or thirty-two weeks of therapy.
- VI. Definition of Groups:
 - A. Group I: Two half-hour sessions per week for one school year.
 - B. Group II: Three half-hour sessions per week for one school year.
 - C. Group III: Four half-hour sessions for an eight week period, followed by once a week therapy for the second eight week period.

VII. Procedures:

A. Scheduling:

Thirty children from the Crawford County local schools were divided into three groups of ten each.

B. Selection of children was based upon:

1. those having a functional articulatory problem
2. those whose hearing was within normal limits
3. those who were enrolled in grades two through eight
4. those whose I.Q. scores ranged between 85-125

C. Tests administered by the experimenter:

1. Multi-Sound Articulation Test
2. Word Stimulation Test
3. Non-sense Sound Stimulation Test
4. Recording of sample of connected speech
5. Examination of oral structures
6. Audiometric Screening Test
7. Group intelligence tests were used. If no group test scores were available, the Peabody Picture Vocabulary Test was given.

D. Conditions of Therapy:

All sessions were one-half hour in length. No more than two different sounds were stimulated in a group at any one time. Groups were composed of three to five children.

VIII. Evaluation:

All data were processed on an IBM computer system.

A. Summary of Effects of Frequency of Therapy Sessions:

1. Total speech scores for the three alternate methods of scheduling showed no significant differences following eight weeks of therapy.
2. The connected speech sample score was the only test measure to show a significant difference among the three conditions of scheduling.
3. Although all groups showed gain, the greatest was made in Group III. Group II made more progress than Group I.

4. Twice weekly scheduling for sixteen weeks resulted in more improvement on total speech scores than four times per week for eight weeks. Each group had thirty-two classes during the time measured.
5. Following sixteen weeks of therapy, no significant differences existed among the groups.
6. Following thirty-two weeks of therapy, no significant difference existed between Group I (twice a week) and Group II (three times.)

B. Summary of the Rate of Improvement Analysis:

1. All groups showed improvement on all test measures from time period to time period.
2. All groups made the greatest gains early in therapy during the first eight weeks period.
3. Rate of connected speech improvement scores was greatest following sixteen weeks of therapy for all three groups tested.

C. Summary of Relationships of Co-Variant Factors:

1. Children with low IQ scores did not make as much gain as those with higher scores.
2. Children in grades two through eight made equal progress in the correction of functional misarticulations.
3. At least sixteen weeks of therapy seemed necessary for enough change to take place to use "sound stimulation in word scores" as a prognostic indicator.
4. Non-sense syllable stimulation scores did not show a relationship to change scores on any test measure, and were not effective prognostic indicators.
5. The worse the pre-therapy score, the greater the gains shown at the end of eight and sixteen weeks.

IX. Conclusions:

- A. Gains shown by the group scheduled four times per week was only slightly greater than the gains of the other two groups, but not significantly so.
- B. Twice a week therapy was as effective as three times over a period of thirty-two weeks.
- C. It was hypothesized that the lack of gain between eight and sixteen weeks was a result of a plateau of learning rather than a scheduling problem.

DAYTON STUDY

- I. Project Title: "Intensive Cycle Scheduling of Speech Therapy Classes."
- II. Location: Dayton City Schools
- III. Date: 1961-1964

IV. Project Participants:

A. Project Coordinator:

Mr. William Beitzel
Supervisor of Special Education

B. Therapists:

Miss Gertrude Hutter
Mrs. Marjorie Feuer
Mrs. Marlene Haley

Mrs. Marie Kordes
Mrs. Elva Robinson
Miss Judy Weaver

V. Objectives:

The purpose of this study was to compare the effectiveness of the intensive cycle plan of scheduling speech therapy classes with the traditional plan to determine:

- A. The age at which children respond best to intensive cycle scheduling
- B. The type of speech problem for which intensive scheduling seems most effective
- C. The optimum length of time for a "block" of speech therapy
- D. The feasibility of scheduling both methods concurrently in one building

VI. Definition of Terms:

- A. Traditional Plan: Each child enrolled in speech therapy received two half-hour lessons per week.
- B. Intensive Plan: Each child enrolled in speech therapy received four half-hour lessons per week.

VII. 1961-62 Program:

A. Procedures for 1961-62:

1. Buildings Scheduled:

The experimental group was scheduled in four buildings. Two were scheduled the first semester and two second.

For long term cases in the two first semester schools, follow-up therapy was given once a week during the second semester. There were twenty-one such cases, of which six were determined to be corrected.

2. Tests Administered:

Therapists used their own diagnostic screening tests of articulation.

B. Evaluation:

1. Objective:

At the end of the year, results in the four schools on the intensive plan were compared with the four schools using the traditional plan. The schools were matched as to size and general socio-economic level of students.

The results are reported in Table I below:

TABLE I

Statistical Data

	Experimental		Traditional	
	Number	Percent	Number	Percent
Enrolled	130	--	109	--
Corrected	66	50%	32	29%
Improved	55	42%	69	63%
Unimproved	8	.06%	5	.04%
Replacements	28	21%	25	22%
Long Term	31	23%	26	23%
Waiting List	42	--	95	--

2. Subjective Evaluation:

- a. Under the traditional plan, the project director reported that more time was needed to know each child in order to plan for adequate therapy, and that mild and moderate articulatory problems "dragged" for a full semester.
- b. Under the intensive plan, closer rapport with children was established at an earlier date, and early correction of mild and moderate cases permitted the enrollment of a greater number of students in therapy.

VIII. 1962-63 Program

A. Procedures for 1962-63:

Four schools were scheduled, with two schools served each semester. The therapist spent four consecutive half-days at each school each week. At the end of the first semester, the two schools receiving daily therapy were changed to once a week therapy sessions.

Each matching school on the traditional plan received one morning and one afternoon of speech therapy per week for the entire school year.

Evaluation for the two year period of 1961-63 is given in Table II below.

TABLE II
Corrections

AREA	Traditional	Intensive
Number Enrolled	221	219
Percent Corrected	25.7%	53.4%

B. Evaluation:

Two schools, each using the traditional plan one year and the intensive plan the following year, showed that under the intensive plan:

1. A greater number of pupils received therapy
2. A greater number of children with articulation problems were corrected
3. Percent of correction was higher

IX. 1963-64 Program:

A. Procedures for 1963-64:

During the 1963-64 school year, further experimentation with intensive scheduling was conducted in nineteen Dayton Public Schools by five speech therapist. The school year was divided into four blocks of time. A block of ten weeks at the beginning of the school year and a second eight week block. This contrasted with the single eighteen week block of 1961-62.

Upon completion of the first block, the therapist dropped the first two schools, but provided continuing service to selected children on the fifth day. By February, all four assigned schools had completed a ten weeks block of therapy, and each therapist returned to the first schools to re-evaluate case load and re-schedule. At the end of eight more weeks of therapy, the therapist dropped these two schools until the following September, but retained selected children on once a week basis.

B. Evaluation:

1. Objective Evaluation:

- a. A breakdown of the articulation case load by grades indicated that best results were obtained in grades four, five and six in terms of number and percent of pupils corrected
- b. The groups which responded least were made up of seventh and eighth graders
- c. Intensive cycle scheduling seemed to be less effective with problems involving organic impairments such as cerebral palsy, cleft palate, and brain injured.

- d. Intensive scheduling provided the opportunity for a greater number to receive speech therapy, and for a greater percent of improvement
- e. Experimentation with length of blocks revealed that the ten eight-week blocks enrolled more pupils than did the eighteen-week blocks. However, the ten eight-week block schools were first year schools. The previous study showed that first year schools enrolled more pupils than did those using intensive therapy for the second time. The correction rate of total case loads was similar in each school
- f. The limitation of four buildings per therapist was thought to:
 - a. Provide an on-going program of once a week therapy for selected children between blocks on the intensive cycle plan
 - b. Permit scheduling of selected children as needed.

2. Subjective Evaluation:

The project director felt that intensive cycle scheduling tended to:

- a. Provide better integration of speech therapy with the total school program
- b. Result in more consistent oral practice at home and more sustained interest by the pupils
- c. Permit more frequent contacts between therapists and school personnel
- d. Minimize the effect of pupil absence on speech progress
- e. Shorten time allotted to speech screening
- f. Result in fewer problems in scheduling therapy classes for upper elementary children as they could be seen at times which best suited their program
- g. Stimulate more frequent conferences with parents and teachers
- h. Permit the enrollment of a larger number of children with speech problems without detracting from the quality of the work accomplished
- i. Provide a higher rate of correction

EAST CLEVELAND STUDY

- I. Project Title: "Intensive Short Term Scheduling of Children With Defective Sibilant Sounds"
- II. Location: East Cleveland City Schools
- III. Date: 1963-64
- IV. Project Participants:
 - A. Project Coordinator:

Dr. Bruce Holderbaum
Coordinator, Pupil Personnel Services
 - B. Therapist:

Mrs. Jean Oliver
 - C. Consultants: (Ph.D. Candidates from Western Reserve University)

Mr. Eric Sander
Mr. Frank R. Johnson
Mr. C. W. Koutstaal
- V. Objective:
 - A. To determine the relative effectiveness of the traditional and intensive short term plan of scheduling children with defective sibilant sounds in grades two through six.
- VI. Definition of Terms:
 - A. The Intensive plan is defined as therapy received in four half-hour periods, four days a week for six weeks.
 - B. The Traditional plan is defined as therapy received in two half-hour periods two days a week for twelve weeks.
- VII. Procedures:

The experimental (intensive cycle) and control (traditional method) groups were matched according to sex, grade levels, intelligence quotient and hearing acuity as determined by audiometric tests. Eleven boys and five girls comprised the experimental group and nine boys and six girls the control.

For six weeks, the experimental group received therapy on the s sound for four half-hour periods, four days a week, for a total of twenty-four lessons. For twelve weeks, the control group received therapy on the s sound for two half-hour periods, two days a week, for a total of twenty-four lessons.

Therapy performed by the therapist followed the same sequence of lessons for both groups, used the same techniques and methods in therapy and made the same assignments for school and home study. These assignments were reinforced by involving both the parents and teachers in active participation during class visits. Twelve parents and three teachers in the experimental group and nine parents and three teachers in the control group observed speech classes.

Four weeks after the conclusion of therapy for each group, two new judges were selected. These judges were not familiar with the East Cleveland program or this specific study. They were Mr. Frank R. Johnson and Mr. C. W. Koutstaal of Western Reserve University. They were doctoral candidates who had much previous professional experience in diagnosing children with speech problems.

The judges and the therapists went to the schools and taped each subject's speech. At the same time judgments were made to detect a defective s sound. The same series of pictures and sentences were used to elicit the necessary responses. In both the experimental and the control groups, the therapist did not see any of the subjects in the four-week period following the conclusion of therapy until the day she accompanied the judges to make the post-therapy tapes.

In both the control and the experimental groups, the therapist and the judges were in almost complete agreement concerning the need for therapy resulting from a defective s sound.

VIII. Evaluation:

A. Subjective Evaluation:

The data appears to indicate a decided difference in the rate and/or degree of progress. The judges' evaluation showed improvement in the experimental group twice as large as in the control group. Thus, within the limits set forth in the study, a favorable result is found for the short-term, intensive therapy plan. In the experimental group, there was agreement that three children did and six did not require further s sound therapy. In the control group, there was agreement that only three children did not require further s sound therapy and nine children did require additional therapy.

B. Experimenter's Comments:

In conclusion, it appears that there is justification for planning a program using the intensive, short-term therapy method. These findings of themselves, do not suggest eliminating the traditional approach.

SUMMARY

For a number of years, staff members of the Division of Special Education concerned with the administration and supervision of speech therapy programs have been interested in alternate methods of scheduling speech and hearing services in local districts to insure that maximum benefit to children ensues. Research in other states in "intensive cycle" or "block" methods of scheduling indicated that alternate methods could, in some cases, yield improved services to children beyond that offered by the traditional, or twice weekly scheduling presently utilized in Ohio.

In an effort to provide an opportunity for local experimentation, research and demonstration units in intensive cycle scheduling were approved in several school systems. The cooperation between the local districts and the Division of Special Education enabled the development of a better understanding of scheduling procedures. The participating school districts described in this survey were:

1. Brecksville City Schools
2. Cleveland City Schools
3. Crawford County Schools
4. Dayton City Schools
5. East Cleveland City Schools

The progress reports of the five participating districts appeared to give both subjective and objective support to the intensive cycle method of scheduling. They indicated the following advantages:

1. A greater number of children could be enrolled during the school year.
2. A larger percentage of children were dismissed from therapy as having obtained maximum improvement.
3. The length of time children with articulatory problems were enrolled in speech therapy was reduced.
4. Although not statistically significant, the Brecksville study gave some indications that a greater carry-over of improvement occurred.
5. Closer relationships between the therapist and school personnel and parents was noted due to the greater acceptance of the therapist as a specific part of a particular school's staff.

6. Students appeared to sustain interest in therapy over a longer period of time.
7. Less time was needed in reviewing a lesson since daily therapy sessions occurred.

Suggestions relative to the length and nature of intensive cycle scheduling include:

1. The first block scheduled should be longer to account for screening and program organization.
2. Sessions should be a minimum of four weeks in duration.
3. A minimum of two cycles, and preferably three to four each year, are needed for best results.

Problems related to intensive cycle scheduling include:

1. Some problems of a psychogenic nature may need more frequent contacts on a regularly scheduled basis.
2. Administrative problems and reactions to students leaving a classroom on a daily basis may be a problem if the intensive cycle program is not carefully explained to the school staff.
3. Monopolization of a shared room for therapy services may cause scheduling problems.
4. Presently, therapists in Ohio have no real training in working with intensive cycle scheduling, and adjustment may be difficult. Student teaching in intensive cycle scheduling is presently unavailable.